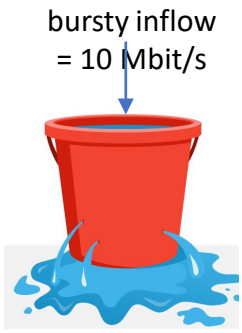
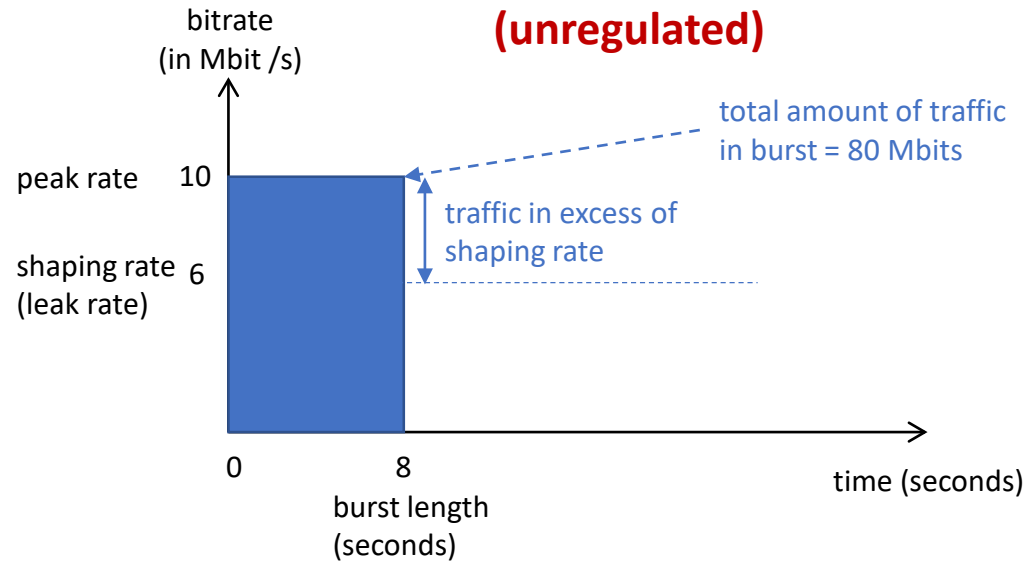


"Shaping": Example for a single traffic burst



leak rate = shaping rate
= 6 Mbit/s

Incoming traffic (unregulated)

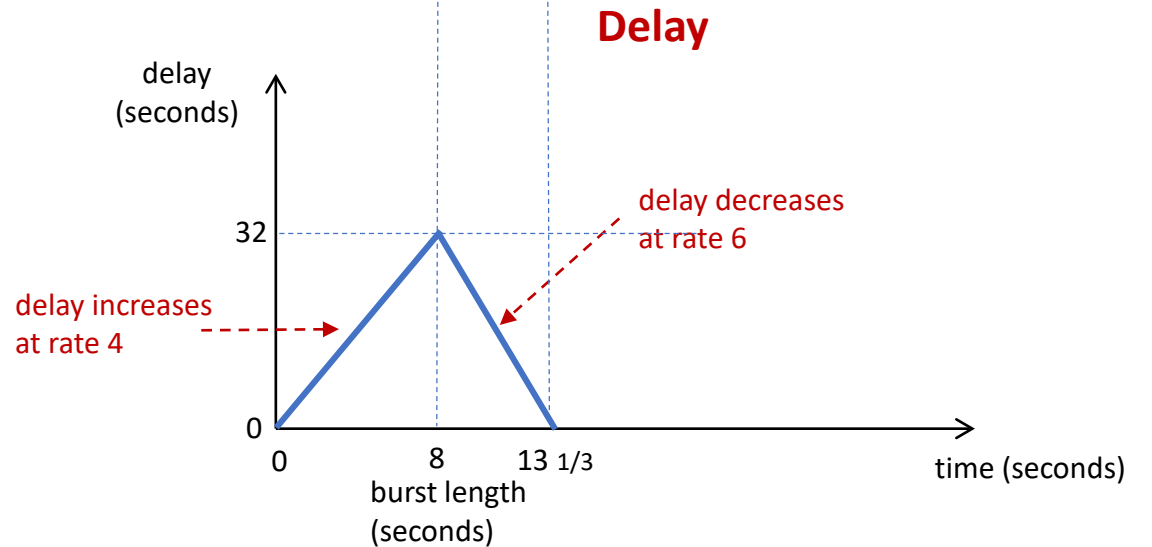
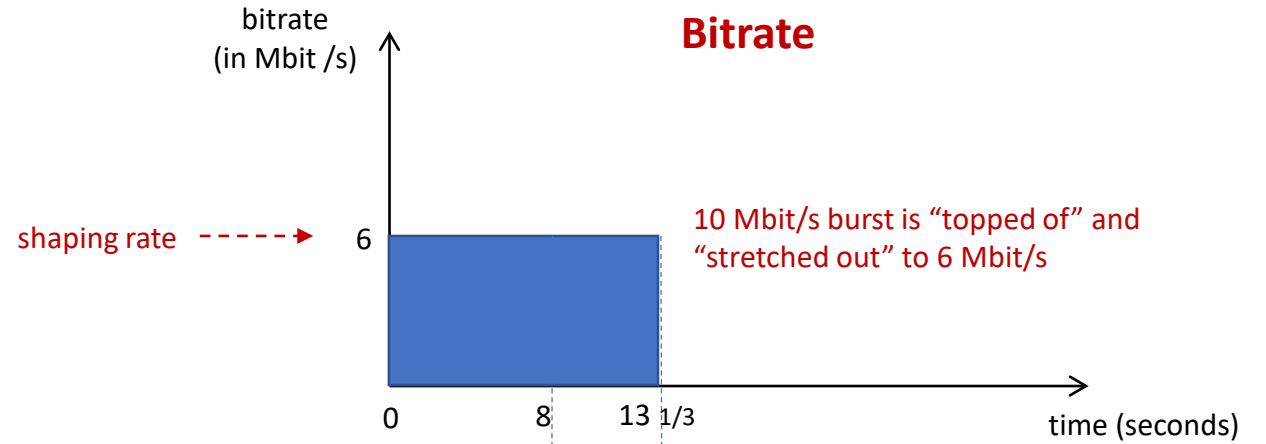


Assumptions for this specific example:

Peak rate = 10 Mbit/s, shaping rate = 6 Mbit/s

The way shaping works:

1. When burst rate > shaping rate rate => shaping buffer level rises (at a rate equal to peak rate minus shaping rate)
2. The delay then equals then buffer level / shaping rate

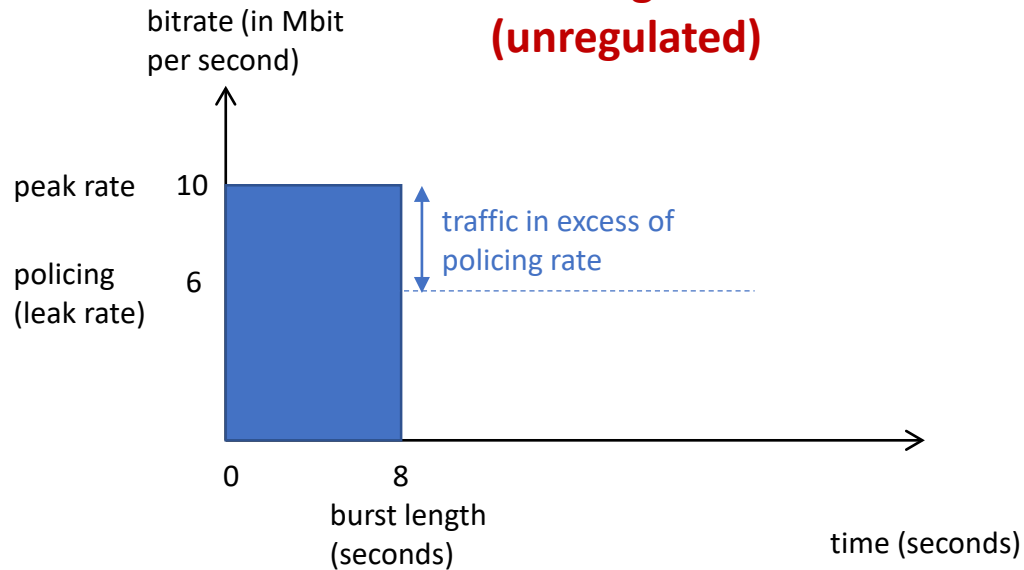


“Policing”: Example for a single traffic burst



leak rate = policing rate
= 6 Mbit/s

**Incoming traffic
(unregulated)**



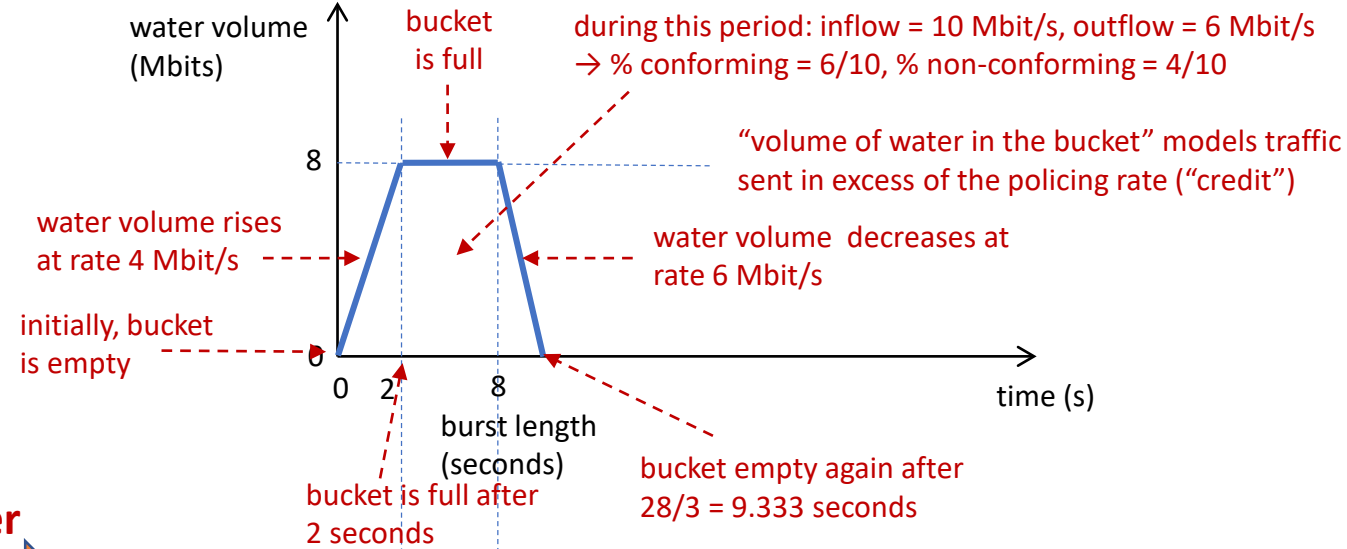
Assumptions for this specific example:

1. Peak rate = 10 Mbit/s, policing rate 6 Mbit/s
2. Burst tolerance = 1 Mbyte = 8 Mbit (“volume of the bucket”)

The way the leaky bucket policing works:

1. When burst rate > policing rate => water level in the bucket rises
2. When water volume = burst tolerance (that is: “the bucket is full”) only a fraction “f” of the packets are marked conforming and the other packets as non-conforming
3. Fraction conforming “f” is given by $f = \text{policing rate} / \text{peak rate}$, and fraction non-conforming by $1-f = (\text{peak rate} - \text{policing rate}) / \text{peak rate}$

“Water volume in bucket”



Policer



Conforming and non-conforming packets

